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Implementation of General Assembly resolution 58/200

Science and technology for development

Report by the Secretary-General

Summary

The present report is prepared in response to General Assembly resolution 58/200. It summarizes work carried out by entities of the United Nations system in the area of biotechnology.

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I. Introduction

1. At its fifty-eighth session, the General Assembly adopted resolution 58/200 on science and technology for development in which it reaffirmed the role of the Commission on Science and Technology for Development in providing policy guidance, in particular on issues of relevance to developing countries. In that resolution, the General Assembly noted with appreciation the report of the United Nations Conference on Trade and Development (UNCTAD) entitled *Information and Communication Technology Development Indices*,[1] which served as an important contribution to the preparation of the World Summit on the Information Society, and invited UNCTAD to update its report, in collaboration with the information and communication technologies Task Force and the International Telecommunication Union (ITU). In response to that request, UNCTAD published in early 2005 *The Digital Divide: ICT Development Indices 2004*.[2]

2. In the same resolution, the General Assembly recognized the important role of new and emerging technologies in raising the productivity and competitiveness of nations and the need, inter alia, for capacity-building measures, and urged the relevant bodies of the United Nations system engaged in biotechnology to work cooperatively so as to ensure that countries receive sound scientific information and practical advice to enable them to take advantage of these technologies, as appropriate, to promote economic growth and development. The Assembly took note of the proposal of the Secretary-General in his report (A/58/76) for an integrated framework for biotechnology development within the United Nations system, and requested him to report further on the status of coordination between the relevant organizations and bodies of the United Nations system with a view to strengthening coordination of activities in the area of biotechnology, in particular the promotion of biotechnology within the United Nations system.

3. The present report reviews recent and ongoing biotechnology-related activities undertaken by United Nations bodies and the status of collaboration among them and makes recommendations on further strengthening system-wide coordination, especially through UN-Biotech, the United Nations inter-agency cooperation network on biotechnology. It draws primarily on responses to a questionnaire prepared by UNCTAD, in collaboration with other members of UN-Biotech, sent to 24 United Nations bodies on 2 November 2004.

II. Collaboration within and outside the United Nations system on biotechnology-related activities

4. The recommendation of the Secretary-General for an integrated framework for biotechnology development was echoed at the Global Biotechnology Forum convened by the United Nations Industrial Development Organization (UNIDO), in collaboration with the Government of Chile in Concepción in March 2004, with assistance from the International Centre for Genetic Engineering and Biotechnology, with a view to ensuring that biotechnology is being fully harnessed in the pursuit of the Millennium Development Goals. UN-Biotech was set up after the holding of the Global Forum by relevant United Nations agencies carrying out biotechnology-related activities. The scope of its work encompasses "any technological application that uses biological systems, living organisms or derivatives thereof to make or modify products or processes for specific uses".[3] Building on existing extensive

collaboration and partnerships among United Nations entities, UN-Biotech is mandated to complement and add value to existing programmes and projects by facilitating synergies and joint efforts so as to maximize system-wide coordinated action, coherence and effectiveness of support provided to Member States in their efforts to achieve the internationally agreed development goals, especially those contained in the United Nations Millennium Declaration, and to implement the outcome of the World Summit on Sustainable Development.

5. UN-Biotech has met twice at UNCTAD headquarters in Geneva in conjunction with the annual sessions of the Commission on Science and Technology for Development, in May 2004 and May 2005. Activity in the pipeline includes the setting up of a web portal, which will serve as the primary channel of coordination, enabling: (a) focal points to keep abreast of biotechnology-related plans and activities within the system; (b) assessment of biotechnology-related activities within the system; and (c) mapping out of a coherent system-wide strategy for delivering biotechnology products and services to Member States, while each agency maintains its own work programme and priority areas. It is envisaged that, at a later stage, the portal will be expanded to include a repository of information on research and development activities in developing countries and countries with economies in transition, including information on commercial products and technologies developed locally and on patent laws, release of genetically engineered micro-organisms/products and biosafety legislation.

6. Members of UN-Biotech, most notably UNCTAD, the International Centre for Genetic Engineering and Biotechnology and the United Nations Environmental Programme (UNEP), have contributed to the preparation of the present report. A questionnaire was sent out to gather inputs from 24 entities within the United Nations system on their biotechnology-related activities, as well as collaboration with other entities in five broad areas: agriculture and food; health; biosafety and the environment; trade and development; and capacity-building.

7. According to responses to the questionnaire, about four tenths of biotechnology-related activities carried out by United Nations bodies are in collaboration with another entity. Inter-agency collaboration is particularly notable in activities involving international mechanisms and health, although it makes up less than a fifth of all activities.

8. Most biotechnology-related activities within the United Nations are in the areas of biosafety and the environment. Those include work on cross-border agreements such as the Convention on Biological Diversity and its Cartagena Protocol on Biosafety, the multilateral environmental agreements, the Codex Alimentarius, safe and ethical conduct, as well as studies and publications on the legal aspects of the use of biotechnology. There are 28 activities reported under this programme area, about three fifths of which are collaborative, or at least being synchronized with the programmes of other agencies. Inter-agency collaboration is strongly manifested in this area, while the Food and Agriculture Organization of the United Nations (FAO) and UNEP also work with other non-United Nations international bodies. Collaboration with individual Governments was also reported by UNIDO and the Economic Commission for Africa.

9. In the area of biosafety and environment, four out of the 18 activities reported by UNEP are collaborative: two within the United Nations, one with another international body and one with a Member State. In the area of agriculture and food,

about one third of the activities reported by FAO are collaborative, primarily with non-United Nations entities. Almost half of the reported capacity-building activities are collaborative efforts, mostly with individual Member States. The greatest degree of collaboration among United Nations agencies took place in the field of health.

10. As the only operating laboratory in the field of genetic engineering and biotechnology within the United Nations system, and as a major training and information resource for developing countries, the International Centre for Genetic Engineering and Biotechnology undertakes a spectrum of activities reflecting all five programme areas. As a technical arm, it is clearly in a position to closely collaborate with other agencies in fields such as innovation development, biosafety, technology transfer, investment strategies and management, including the development, acquisition and commercialization of biotechnology products, services and industrial processes, as well as in global bioinformatics networking.

11. Based on an analysis of the questionnaire, it is proposed that UN-Biotech could serve as an advisory unit for developing countries on new trends in biotechnology innovations, policy and trade, an area not currently developed. Issues related to biosafety, bioethics, public awareness and participation are covered by many entities. The focus of UN-Biotech should be on building productive capacity in all areas of biotechnology, such as industry, health, agriculture and environment, which may help developing countries to become leaders in formulating policies as that technology is developed.

12. Given the biotechnology programmes and areas of specialization of the various agencies, and to enable developing countries to better benefit from biotechnology, UN-Biotech could explore mechanisms to help developing countries build the human resources and infrastructure needed to participate in the bioeconomy. Such a system could take advantage of existing programmes, such as the UNCTAD network of centres of excellence initiative, International Centre for Genetic Engineering and Biotechnology affiliate centres and UNIDO, UNEP, FAO and World Health Organization (WHO) national offices.

III. Review of biotechnology-related activities within the United Nations system

13. Biotechnology, a collection of techniques and processes that employ organisms or their units to develop useful products and services, has the potential to become a powerful tool in meeting the challenges posed by food insecurity, industrial underdevelopment, environmental degradation and disease. It cuts across all areas of human activity. Appropriate applications of biotechnology on agriculture, health, environment, manufacturing and energy, among other sectors, could significantly contribute to the achievement of development goals. Because of its enormous potential and cross-cutting nature, biotechnology has become an increasingly important component in the development activities of the organizations and bodies of the United Nations.

A. Programme area A: Agriculture and food

14. In order to improve food security, especially in some developing countries that remain food insecure, there is a need to significantly increase food supply and improve food distribution through more sustainable agricultural systems. That will require the successful and environmentally safe application of biotechnology in agriculture. Most investment in modern biotechnology has been in developed countries. Significant new investments and human resources development will be required in biotechnology, especially in the developing world.

15. The lead United Nations organization in promoting agriculture biotechnology among developing countries has been FAO. In response to the call of Member States in 1999 for strengthened efforts in maximizing the benefits and minimizing the potentially adverse consequences of biotechnology, a multidisciplinary, cross-sectoral programme was established. The major function of the FAO biotechnology applications in food and agriculture, forestry and fisheries (Biotechnology Priority Area for Interdisciplinary Action (PAIA) programme) is to provide factual, comprehensive and current information.

16. To that end, information tools of diverse focus have been set up through various media. FAO Internet-based information tools on biotechnology are: (a) the FAO website on biotechnology, accessible in five languages; (b) the e-mail newsletter *FAO-BiotechNews*, posted in three languages; (c) the FAO electronic forum on biotechnology in food and agriculture; (d) the FAO-BioDeC, a database on tropical biotechnology crops, livestock and forestry techniques, as well as policies, regulations and activities of selected developing countries; (e) a series of publications in four languages entitled "Agricultural biotechnology: will it help?" for non-specialists; and (f) the FAO Glossary of biotechnology for food and agriculture, a multilingual database containing definitions of about 3,200 terms and acronyms. The theme of the 2004 edition of *The State of Food and Agriculture* was "Agricultural biotechnology: meeting the needs of the poor?".

17. The Technical Cooperation Network on Plant Biotechnology in Latin America and the Caribbean was established in 1990 to accelerate the adaptation, generation, transfer and application of plant biotechnology in relieving crop production constraints and in ensuring genetic resources conservations for the countries in the region. The Network membership numbers 526 public and private laboratories and institutions specializing in plant biotechnology in 27 countries in Latin America and the Caribbean.

18. Biotechnology is an important component of the FAO/International Atomic Energy Agency (IAEA) programme in food and agriculture, which contributes actively to biotechnology applications in agriculture, forestry and fisheries. Work on crop and livestock improvement is conducted in close collaboration with the Consultative Group on International Agricultural Research.

19. While IAEA does not have a separate biotechnology programme, it promotes biotechnology where appropriate, to further nuclear applications. It currently coordinates 7 research networks and assists about 30 capacity-building projects for integrating modern techniques into national plant-breeding and conservation programmes, with a view to characterizing plant genetic resources, widening plant genetic diversity and introducing agronomically and commercially useful traits. In the area of animal production and health, work is being done on improving

reproductive efficiency, characterizing indigenous animal genetic resources and the diagnostics and treatment of contagious bovine diseases. Approximately 15 research networks and over 50 technical cooperation projects are under way in these areas.

20. Although the World Food Programme (WFP) has no direct involvement in the development of biotechnology, it has expressed strong interest in developments in this area. Its policy on foods derived from modern biotechnology has been developed in consultation with FAO, WHO and World Trade Organization. While emphasizing that there is no scientific evidence of adverse health effects from the consumption of the genetically modified biotech foods currently on the market, and having distributed hundreds of millions of rations containing such elements, WFP respects national policies on these foods.

21. Many of the research and training activities carried out by the International Centre for Genetic Engineering and Biotechnology are focused on crop improvement (in particular cotton, rice, tomato and sunflower) with stringent biosafety concerns. Molecular biology approaches have been used to improve, inter alia, resistance to stress such as salinity and drought, insect resistance, fungal resistance, and nutrition value of crop products, as well as techniques for genetic transformation and protein expression as used in agroindustry. Furthermore, scientists at the Centre have developed and patented an innovative biopesticide, which is available for the agroindustry in developing countries.

22. In the area of agroindustry, UNIDO promotes the use of biotechnology to develop suitable bioprocesses, including the use of green jute as a raw material in the production of pulp and paper. UNIDO promotes the use of novel and safe strains of non-genetically modified micro-organisms in fermented foods, as well as the enhancement of the nutrient content of food.

23. The Biotechnology Action Council programme of the United Nations Educational, Scientific and Cultural Organization (UNESCO) is focused on the applications of biotechnology in plants and marine life. This programme serves as the umbrella for five regional biotechnology education and training centres. Like the World Network of Microbiological Resources Centres, the five regional centres provide research and training opportunities at the regional level in the diverse aspects of biotechnology and its potential application.

24. A subsidiary of the Economic and Social Commission for Asia and the Pacific, the Asian and Pacific Centre for Agricultural Engineering and Machinery organized a two-day international seminar and exhibition on animal feed biotechnology in March 2004 in collaboration with the Chinese Academy of Engineering and the Chinese Academy of Agricultural Sciences.

B. Programme area B: Health

25. The improvement of human health is one of the most important objectives of development. There are several factors that affect health, such as environmental quality, malnutrition, poverty, poor human settlements and inadequate sanitation facilities. Many people still lack access to basic health services and have limited alternative drugs, vaccines and diagnostic facilities. Several United Nations bodies are involved in human resource development and transfer of biotechnology techniques.

26. According to WHO estimates, at present more than 90 per cent of advanced health technologies are developed in less than 10 per cent of the countries of the world, and 90 per cent of all medical research is geared to health problems affecting less than 10 percent of the world population. WHO, which has made equality of access to health care a fundamental goal, has been promoting initiatives to redress the balance. Its technology-related activities cover a broad variety of areas, from blood transfusion safety, blood products, laboratory service, diagnostic radiology and other medical devices, surgery, anaesthesiology, transplantation, e-Health, genomics and technology assessment. It also provides norms, standards, guidelines and advocacy, as well as training materials and technical assistance at the country, regional and global levels.

27. In recent years, the World Health Assembly has addressed a number of specific issues in the field of biotechnology, such as genomics, transplantation and human reproductive cloning. In 2003, it established the Commission on Intellectual Property Rights, Innovation and Public Health to look into these and related areas. In executing its activities in health technologies, WHO collaborates with ITU, IAEA, the Joint United Nations Programme on HIV/AIDS (UNAIDS), the United Nations Children's Fund (UNICEF) and the World Bank.

28. Under its programme on human health, IAEA carries out technical cooperation projects in nuclear medicine involving molecular biology techniques for epidemiology, diagnosis, prognosis and detection of drug resistance for both communicable and non-communicable diseases. It works together with the WHO Regional Office for Africa, and with the African AIDS Vaccine Programme for the HIV/AIDS project in Africa.

29. There has been an increase in the use of radiolabelled peptide and recombinant deoxyribonucleic acid (DNA) technologies and products in the field of radiopharmacology. IAEA refers closely with the WHO Quality Assurance and Safety of Medicine group, which is charged with developing standards and monographs for international pharmacopoeia. In its technical cooperation projects in the area of radiation and tissue banking, which involved teaching and training courses and the production of a code of practice for radiation sterilization, the agency also refers to WHO, which is primarily charged with ethical and safety issues concerning tissue banking.

30. The International Centre for Genetic Engineering and Biotechnology places major emphasis on health-related research, employing the most advanced and powerful molecular biology techniques in the study of common infectious diseases, genetic disorders and cancer. Its research has led to important breakthroughs in the understanding of these diseases and, potentially, to the identification of diagnostics, drugs and vaccines. Another important sector of activity exploits viral vectors based on the adeno-associated virus to deliver to the heart and the skeletal muscle different genes that induce therapeutic angiogenesis and tissue regeneration. The Centre has also established specialized research groups on the development of simple and innovative technologies for the production and quality control of important life-saving recombinant pharmaceuticals to enhance the technical capacity of pharmaceutical industries in developing countries. Fully fledged technology transfer programmes, which include several weeks of training, have been defined and relevant memorandums of understanding have been signed with more than 20 industrial partners located in developing countries.

31. The United Nations University Institute for New Technologies has two main research projects in this programme area: (a) bioprospecting and drug research focusing on the interaction between intellectual property rights on drugs, traditional medicinal knowledge and access rights over genetic resources for bioprospecting; and (b) building innovative biopharmaceutical systems that map and analyse existing innovation systems in the biopharmaceutical industry in five developing countries.

32. Biotechnology policy research of the United Nations University Institute of Advanced Studies compares the different ethical, legal and social aspects of medicine and access to health care, including the ethical aspects of biotechnology application in human health.

33. Within the context of the United Nations Global Compact, UNIDO is cooperating with a pharmaceutical company to identify innovative partnership models. It has drawn up a legal framework that would be conducive to quality production and standardization and to the production of generic drugs. These activities include joint research projects of selected generic drugs and biopharmaceuticals, as well as the creation of a "young professional" programme, designed to provide conceptual and practical training in the biopharmaceutical industry, for practitioners from developing countries.

34. The Occupational Health Services Convention of 1985 (No. 161) of the International Labour Organization (ILO) lists the basic functions a national occupational health service should provide. Since all these functions are affected by genetic research, genetic testing has emerged as an important issue. The Code of practice on the protection of workers' personal data, of 1997, the Technical and ethical guidelines for workers' health surveillance, of 1998 and the Code of practice on HIV/AIDS and the world of work of 2001 all emphasize the privacy of workers and consider that genetic screening should be prohibited, or at least limited to cases covered by national legislation.

35. ILO monitors the impact of the introduction of biotechnology on the growing food and drink industries through its Food and Drink Industries Committee. At its most recent meeting in 1998, the Committee concluded that the development of food technology, including biotechnology and food chemistry, is generating new jobs in areas such as research and development, and that increased sales of new and high value-added products should create more employment opportunities. The production of safer and more disease-resistant products and the application of biotechnology to produce "functional foods", which reduce blood sugar levels and lower the risk of heart disease, is another promising area.

C. Programme area C: Biosafety and the environment

36. The need for a diverse genetic pool of plant, animal and microbial germ plasm for sustainable development is well established. Biotechnology is one of the many tools that can play an important role in supporting the rehabilitation of degraded ecosystems and landscapes. This may be done through the development of new techniques for reforestation and afforestation, germ plasm conservation and the cultivation of new plant varieties. For that reason, several United Nations bodies are helping countries to develop biosafety mechanisms to promote the safe use and application of biotechnology to maximize benefits and minimize risks.

37. UNEP has taken the lead in this programme area, having focused on biosafety by promoting the protection of the environment through the safe application of biotechnology and its products. The pivotal role that UNEP plays in the protection of the environment dates back to 1992, when Agenda 21 was adopted at the United Nations Conference on Environment and Development.

38. One of the key agreements adopted at the United Nations Conference on Environment and Development, the "Earth Summit", in Rio de Janeiro was the Convention on Biological Diversity, which addresses the issue of biosafety in its articles 8 and 19. The Cartagena Protocol on Biosafety, the first international legal instrument on biosafety, was adopted in January 2000 and entered into force in September 2003. The UNEP international technical guidelines for safety in biotechnology were published in 1995 as an interim mechanism to facilitate the development of national capacities to assess and manage biotechnology risks, the establishment of adequate information systems and the development of human resources and relevant expertise pertinent to biosafety issues at national and regional levels.

39. To enable State parties to carry out their obligations under the Cartagena Protocol on Biosafety, UNEP, with support from the Global Environment Facility, has provided assistance to 18 countries under the Facility's pilot biosafety enabling activity project. Other projects subsequently approved by the Global Environment Facility Council were (a) a global project to assist up to 100 countries to develop their national biosafety frameworks; (b) a series of demonstration projects for 12 countries that had a draft regulatory regime in place to implement their national biosafety frameworks; and (c) the Biosafety Clearing House project. UNEP works in collaboration with a wide range of partners, including the Global Environment Facility secretariat, the Convention on Biological Diversity secretariat, the Scientific and Technical Advisory Panel of the Global Environment Facility, regional intergovernmental organizations, international organizations, intergovernmental organizations, other United Nations agencies, and a range of key stakeholders including donor nations, agriculture and biotechnology industry associations, and non-governmental organizations.

40. UNEP is currently helping 133 countries to develop and implement their national biosafety frameworks and assisting 139 countries in developing their Biosafety Clearing House mechanisms, the information-sharing system through which countries can access the necessary information key to decision-making under the Cartagena Protocol. UNEP has provided training to an estimated 1,500 people from 140 countries in areas such as risk assessment, public participation, regulatory regimes and administrative systems. In addition, the UNEP-GEF national biosafety frameworks development project has developed support tool kits for each major phase in the development of a national biosafety framework. Each tool kit has been prepared with international experts and widespread stakeholder review to assist the national teams in understanding and carrying out of project activities.

41. To encourage cooperation and networking among the countries, three meetings of national project coordinators were organized, in January 2004, May 2004 and March 2005. Furthermore, the UNEP-GEF Biosafety Unit has established a pool of trained regional advisers to provide advice and support to countries, in collaboration with InWEnt, the German capacity-building organization, and UNITAR. It has worked with the Canadian, Swiss and United States Governments to provide

software to assist countries in setting up national Biosafety Clearing House components.

42. UNEP, through its biosafety activities, has also been working with industry representatives through the Global Industry Coalition and non-governmental organizations interested in biosafety through the Third World Network. The close cooperation of UNEP with the Department for International Development (United Kingdom) has led to a study of experiences in 16 countries and an analysis of tools for public participation in biosafety.

43. The UNEP-GEF Biosafety Unit manages 8 of the 12 GEF-funded demonstration projects on implementation of national biosafety frameworks. As GEF enabling activities, the UNEP-GEF projects on implementation of national biosafety frameworks are managed and coordinated by the designated agencies of the countries, thus ensuring that they are country-driven, nationally relevant and implemented in coordination with other relevant capacity-building projects.

44. The entry into force of the Biosafety Protocol in September 2003 has provided impetus for the development of regulatory frameworks for the use of and trade in living modified organisms at the international and national levels. Since 1999, UNEP has been working closely with the secretariats of multilateral environment agreements and the World Trade Organization to build synergies between the multilateral environmental and trade regimes. It has facilitated information exchange and collaboration between WTO and other trade and environment bodies in the areas of negotiation, implementation and dispute settlement.

45. The biotechnology-related policy research carried out by the United Nations University Institute for Advanced Studies covers (a) international trade, biotechnology and biosafety, particularly on the effect of the Convention on Biological Diversity, the Cartagena Protocol on Biosafety, the International Treaty on Plant Genetic Resources for Food and Agriculture, and the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS Agreement), on biotechnology capacity and acquisition by developing countries; (b) technology transfer under multilateral environmental agreements, including current practices and ways of improving the use of the agreements as a transfer mechanism for biotechnology; and (c) agricultural biotechnology development and transfer in Africa, especially on measures for ensuring that the benefits of biotechnology reach the poor through agricultural development.

46. The health for development project of the United Nations University Institute for New Technologies examines the impact of the TRIPS Agreement on (a) promoting research and development on infectious diseases such as HIV/AIDS and malaria, and (b) facilitating access to basic medicines in developing countries. It explores the viability of alternate intellectual property instruments and incentives to encourage research and development, and examines issues related to capacity-building and drug procurement systems in developing countries. Field work for the project is being conducted in five countries. As a special feature of this project, the WHO Commission on Intellectual Property Rights, Innovation and Public Health has commissioned a survey on access to medicine in India.

47. Other research carried out by the United Nations University Institute for New Technologies in this programme area is on the impact of World Trade Organization agreements, such as those on tariff barriers and the TRIPS Agreement, biosafety in

developing countries and the role of North-South partnerships in promoting agricultural biotechnology.

48. A major initiative undertaken by the Economic Commission for Africa in 2002-2003 is the formation of a partnership among United Nations bodies with biotechnology-related activities represented in Addis Ababa to ensure coordination, maximize synergy and promote the exchange of information, experiences and perspectives on biotechnology-related matters. In addition to the Economic Commission for Africa, UN-Biotech/Africa[4] includes FAO, the United Nations Development Programme (UNDP), UNEP, UNESCO, UNIDO, WFP and WHO.

49. An Economic Commission for Africa meeting on biotechnology for Africa's sustainable development in July 2002, brought together experts from both the private and public sectors, civil society, United Nations agencies, the African Union and other institutions. The meeting reviewed biotechnology-related activities carried out in the region; discussed the potential role, benefits and risks associated with the use of biotechnology; and made recommendations for planning and implementing a biotechnology programme for sustainable development. The Commission also organized a training workshop on intellectual property rights and technology transfer of biotechnology for the West African and Central African francophone countries in April 2004. In October 2004, the Commission assisted the West and Central African Council for Agricultural Research and Development in the identification of biotechnology and biosafety-related research capacity needs of its 21 member States.

50. The International Centre for Genetic Engineering and Biotechnology, located in Trieste, Italy and New Delhi, has been conducting biosafety training courses and workshops since 1991, with the overall participation of about 900 scientists from more than 80 countries. The Centre has since extended its work in this area with the establishment of a biosafety unit and a biosafety outstation. The biosafety unit provides institutional services related to the biosafety of genetically modified organisms and their release to the environment. The biosafety outstation conducts research on the biosafety of genetically modified organisms. The unit and the outstation work closely together in three major sectors: (a) information dissemination, including a biosafety clearing house; (b) training in risk assessment for the environmental release of genetically modified organisms; and (c) international cooperation with other international agencies involved in biosafety.

51. The main information tools developed by the International Centre are: (a) a database containing more than 5,000 biosafety studies; and (b) the Risk Assessment Searching Mechanism, which provides access to official documents on risk assessment related to genetically modified crops. The Mechanism has been designed to facilitate decision-making, in accordance with article 10 of the Cartagena Protocol, and is complementary to and interlinked with other related databases.

52. The Centre publishes the "Collection of biosafety reviews", a compilation of scientific studies in areas of major interest on biosafety and risk assessment by internationally recognized scientists. In addition, the Centre biosafety outstation at Ca' Tron in Treviso, Italy, now houses the editorial office of a multidisciplinary international journal focused on genetically modified organisms biosafety research, *Environmental Biosafety Research*, the official journal of the International Society for Biosafety Research.

53. The Centre has been actively participating in the establishment of codes of conduct for scientists in relation to the safe and ethical use of biological sciences, as called for by the United Nations Policy Working Group on the United Nations and Terrorism. A full report was endorsed by both the General Assembly and the Security Council in September 2002, and is in line with the programme of work of the States parties to the Biological Weapons Convention.

54. In addition to its online facilities and training activities, the Centre has launched a new programme for training and research in risk assessment and management of the release of genetically modified organisms to the environment, focusing on the safe use of agricultural products derived from biotechnology. Research activities carried out in the Centre laboratories are focused on the development of innovative, environment-friendly technologies, such as those aimed at the improvement of crops with very low possibilities of horizontal gene flow.

55. UNIDO has established the Biosafety Information Network and Advisory Service and a computer-based decision support system for the assessment of environmental impacts resulting from experimental and commercial releases of biotechnology-derived products. UNIDO has been streamlining the activities of its biosafety clearing house, in the light of ongoing capacity-building programmes of the Global Environment Facility and UNEP, with a focus on providing information and training on biosafety. UNIDO is also collaborating with CAB International to develop authoritative and unbiased biosafety knowledge management tools to assist in the implementation of the Convention on Biological Diversity Biosafety Clearing House Mechanism.

56. The UNIDO cleaner production programme focuses on reconciling industrial development and environmental concerns. Biotechnology is promoted through the use of environmentally sound materials. UNIDO also assists in the implementation of the Stockholm Convention on Persistent Organic Pollutants by providing biological solutions to replace pollutant and resource-depleting technologies and by introducing bio- and phyto-remediation for cleaning heavily contaminated soils. Furthermore, within the United Nations Framework Convention on Climate Change and the Kyoto Protocol, UNIDO promotes solutions to use biotechnologies to supplant the use of fossil fuels by renewable biomass.

57. Further to its 2003 expert consultation on the environmental effects of genetically modified crops, FAO has received requests from Member States for assistance in building or strengthening national biosafety systems. The FAO Commission on Genetic Resources for Food and Agriculture has been preparing an international code of conduct on biotechnology. Based on a report of surveys of FAO members and stakeholders on 16 issues related to the code development, the Commission at its eleventh session will decide on the issues to be discussed. A review, entitled "Preliminary review of biotechnology in forestry including genetic modification", is being prepared for publication. It groups four studies on the status and trends of research and applications of biotechnology to forest woody species.

58. FAO and WHO have held joint expert consultations on the safety assessment of foods derived from genetically modified organisms. Accordingly, the Codex Alimentarius Commission[5] has adopted principles for risk analysis of such substances in general, as well as guidelines for food safety assessment of foods derived from recombinant-DNA plants and from recombinant-DNA micro-organisms. Those documents can be used by Governments in evaluating safety of

such products. In July 2004, the ad hoc intergovernmental task force for foods derived from modern biotechnology was re-established to pursue work in that area. In addition, FAO published a study in 2003 on the theme "Law and modern biotechnology: selected issues of relevance to food and agriculture".

59. IAEA does not directly promote research, development or transfer of genetically modified organisms, but, through the work of its Agriculture and Biotechnology Laboratory at Seibersdorf, Austria, it develops approaches for environment risk assessments of genetically modified insects, and provides countries with capabilities for detecting genetically modified organisms. It has one research network and two technical cooperation projects on plant protection, specifically on the area-wide control of insect pests.

60. An ECLAC-Andean Development Corporation project linking biotechnology and biodiversity addresses the issue in three steps: (a) an analysis of markets for the utilization of biodiversity platforms through technology applications in the Andean region; (b) an assessment of the biotechnology capacity in the Andean region; and (c) a set of policy recommendations for strengthening biotechnology capacities. The Commission has issued several publications on this subject.

61. The TRIPS Agreement obliges World Trade Organization members to make available patents for any invention, whether product or process, in all fields of technology, including biotechnology (article 27, para. 1), with the exception of essentially biological reproduction processes of plants and animals (article 27, para. 3 (b)). The TRIPS Council periodically calls for information on related activities from the World Intellectual Property Organization (WIPO), FAO, the Convention on Biological Diversity, UNCTAD, UNEP and the International Union for the Protection of New Varieties of Plants. The World Trade Organization also conducts training and technical cooperation activities on intellectual property.

62. The parties to the Economic Commission for Europe Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters (the Aarhus Convention) are exploring the extent to which the public should participate in decisions related to genetically modified organisms.

D. Programme area D: Trade and development

63. The potential of biotechnology in developing countries may be limited by trade-related issues. If the products developed at a great cost cannot be traded or if the crops and vaccine do not reach poor farmers and hospitals due to emerging national regulations, countries are unlikely to benefit. Even where the products reach the intended targets, failure by communities to trade in biotechnology products could limit the impact of biotechnology.

64. At its eleventh conference, UNCTAD organized a parallel event on the theme "International trade in genetically modified organisms: Trends and capacity-building needs", which allowed for an informed discussion of the key issues from the development perspective. Representatives from the UNEP-Global Environment Facility project on biosafety, the secretariat of the Biosafety Protocol/Convention on Biological Diversity Convention and the Economic Commission for Latin America and the Caribbean participated in the event as speakers, along with country representatives and academics.[6]

65. UNCTAD recently published two studies on agro-biotechnology and international trade, "International trade in GMOs and GM products: National and multilateral legal frameworks",[7] and "International trade in GMOs: Legal frameworks and developing country concerns".[8] Both studies address some of the specific concerns of developing countries in the sector, such as the need to balance many different concerns, ranging from battling domestic starvation and malnutrition and ensuring health and safety, to preserving the environment, fulfilling multilateral trade obligations and protecting and enhancing trade opportunities. Both studies have been used in technical cooperation activities carried out by the UNEP-Global Environment Facility project on biosafety, as well as in reference material at universities, including Harvard and Cornell Universities.

66. UNCTAD also organized several science and technology policy dialogues to address issues related to the development, commercialization and trade in biotechnology-related products. These policy dialogues were designed to help negotiators, policymakers and Geneva-based delegates gain a better understanding of biotechnology. Several Nobel laureates, biotechnology inventors and experts gave presentations at these policy dialogues. Other agencies, such as WHO, FAO, the World Trade Organization and the United Nations University, were also invited to participate.

67. In addition, UNCTAD also published in 2002 a study on the theme "Key issues in biotechnology" (see UNCTAD/ITE/IBE/10). Designed as an easy-to-read resource book for policymakers, the study reviews several key issues surrounding modern gene technology and its applications in the areas of crop agriculture and medicine and presents the potential benefits and challenges associated with them. It concludes with the major implications for policymakers. Another study, "The new bioeconomy: Industrial and environmental biotechnology in developing countries" (see UNCTAD/DITC/TED/12) was published in 2002 to highlight the application and commercialization of industrial biotechnology products in some developing countries and the role trade plays in technology transfer and development.

68. UNCTAD has also undertaken several activities to facilitate the development of productive capacity in developing countries. As the secretariat for the substantive servicing of the Commission on Science and Technology for Development, UNCTAD addressed national capacity-building in biotechnology and the related issues of technology transfer, human resource development, commercialization and diffusion, and public awareness and participation in biotechnology from 1999 to 2001.

69. In 2004, UNCTAD published a study entitled "The biotechnology promise: Capacity-building for participation of developing countries in the bioeconomy" (see UNCTAD/ITE/IPC/2004/2). The work contains more than two dozen cases of country experiences in biotechnology development and commercialization, and is designed as a useful practical guide for policymakers. It details how various countries implemented their biosafety measures, research and development activities, commercialized technologies and protection of intellectual property rights and traditional knowledge.

70. Under the Agreement on the Application of Sanitary and Phytosanitary Measures of the World Trade Organization, members of the Organization may take measures to protect human and animal health and plant life from food-borne diseases and plant pests, provided that the threat is scientifically evident and the

measures are not discriminatory. As at the end of 2004, the organization had received 111 notifications of sanitary and phytosanitary measures relating to food and feed produced using recombinant DNA techniques and genetically modified ingredients. The organization has organized 33 regional and 26 national workshops on sanitary and phytosanitary measures, at which representatives of the Codex Alimentarius Commission, the World Organization for Animal Health, and the International Plant Protection Convention participated. Members and relevant international organizations provide information on their technical cooperation and assistance programmes on a regular basis to the Sanitary and Phytosanitary Measures Committee, which oversees the implementation of sanitary and phytosanitary measures. The standard-setting bodies represented are the World Organization for Animal Health, the International Plant Protection Convention and the Codex Alimentarius Commission, while observer organizations include FAO, the World Bank, the Organismo Internacional Regional de Sanidad Agropecuaria, the Inter-American Institute for Cooperation on Agriculture, UNEP, UNIDO and UNCTAD.

71. Another World Trade Organization agreement relevant to biotechnology is the Agreement on Technical Barriers to Trade, which is premised on the right of members of the organization to develop and enforce product regulations. Observer organizations include FAO, UNCTAD, UNDP and UNEP. Since its entry into force in 1995, several members have notified the organization of new regulations, including labelling requirements, to indicate potential presence of genetically modified ingredients.

72. International cooperation to address environmental problems has led to approximately 238 treaties for the protection of the global environment and conservation of natural resources. Only some 32 of these multilateral environmental agreements contain trade provisions for the effective achievement of their environmental goals. The issue of the relationship between the trade provisions of these agreements and those of the multilateral trading system has been discussed at length by the World Trade Organization Committee on Trade and Environment. The Committee has not, however, been able to reach any conclusive results. The debate has centred around designing an approach that would allow the World Trade Organization system to accommodate trade measures taken pursuant to the provision of a multilateral environmental agreement, while at the same time establishing safeguards against the application of unnecessary restrictions on members of the organization. The Doha mandate on the relationship between rules and the trade obligations of the organization embodied in the environmental treaties, such as the Cartagena Protocol on Biosafety, contains two limitations: same party membership in the organization and the multilateral environmental agreements; and the fact that negotiations should not add to or diminish the rights and obligations of members of the organization that are not parties to the multilateral environmental agreements.

E. Programme area E: Capacity-building

73. The accelerated development and application of biotechnologies, particularly in developing countries, will require a major effort by all United Nations agencies working in the field to coordinate their activities, as well as assist developing countries in their efforts to build up institutional capacities. Some of the areas that deserve special attention are: research and development facilities and financing,

industrial development, capital (including venture capital), intellectual property rights and expertise in areas including marketing research, technology assessment, socio-economic assessment and safety assessment. There is a need to strengthen the endogenous capacities of developing countries, especially to develop competitive products. International initiatives are needed to support research and to speed up the development and application of both new and conventional biotechnologies, so that they serve the needs of sustainable development at the local, national and regional levels.

74. Some activities at the national, regional and global levels already address the issues as outlined in programme areas A, B, C and D, as well as the provision of advice to individual countries on the development of national guidelines and systems for the implementation of those guidelines. These activities involve many different organizations, priorities, constituencies, timescales, funding sources and resource constraints. There is a need for a much more cohesive and coordinated approach to harness available resources in the most effective manner. As with most new technologies, research in biotechnology and the application of its findings could have significant positive and negative socio-economic and cultural impacts. Those impacts should be carefully identified in the earliest phases of the development of biotechnology in order to enable appropriate management of the consequences of transferring biotechnology.

75. The Commission on Science and Technology for Development, in collaboration with UNCTAD, has been examining the role of science and technology in achieving the Millennium Development Goals. One of its main findings is that most developing countries are unlikely to meet those Goals without significant efforts to build up their capabilities in new and emerging technologies, such as information and communication technologies and biotechnology.

76. To help developing countries build capabilities in those areas, based on a recommendation of the Commission on Science and Technology for Development, UNCTAD will set up a network of centres of excellence on science and technology in developing countries. Existing centres of excellence that have become major sources and conduits for the diffusion of scientific knowledge, and that already possess adequate infrastructure for research and development, will be selected for inclusion in the network.

77. The main objective of the network is to turn those centres into regional hubs of learning that can jointly pool resources and conduct research in areas of importance to developing countries, such as health, agriculture and environment. It is hoped that the network will reverse the negative impact of brain drain by producing researchers who can tackle the development challenges of their countries.

78. UNCTAD also undertakes science, technology and innovation policy reviews upon the request of member States. Recently, UNCTAD, in cooperation with United Nations University-Institute for New Technologies, has undertaken such a review in collaboration with the Ministry of Science, Research and Technology of the Islamic Republic of Iran. The review assesses and provides recommendations for policy measures to develop the biopharmaceutical industry as a sector for reducing the country's dependence on the oil sector.

79. Through its network of affiliated centres, the International Centre for Genetic Engineering and Biotechnology has provided demand-driven assistance to

developing countries, financing collaborative research projects submitted by national institutions of developing countries themselves. Its fellowship programme has been aimed at ensuring the transfer of technology to its member States. In collaboration with national and international academic institutions, the Centre has developed a Ph.D programme in molecular genetics, enabling young scientists from developing countries to acquire an internationally recognized degree, which makes them eligible for subsequent postdoctoral training at renowned research centres. The Centre also conducts a short-term training programme for scientists from member countries. All Centre activities include a capacity-building component, with special emphasis on sustainability and on the environmentally sound applications of biotechnology. In particular, the biosafety unit conducts an intense training programme for the safe use of genetically modified organisms which is further enhanced by the new biosafety outstation.

80. The Centre has also established policies for the protection of intellectual property rights over its research products, while ensuring the accessibility by developing countries of the same rights. In collaboration with UNIDO and WIPO, the Centre intends to develop a programme aimed at analysing the challenges that developing countries face in implementing the TRIPS Agreement on biotechnology-related products.

81. The UNIDO programme on biosafety assists developing countries and countries with economies in transition to build up their institutional capacities, especially those relating to regulatory oversight and compliance with internationally agreed standards. UNIDO implements a biosafety diploma course, which is the first academically accredited biosafety course in the world. Interdisciplinary in approach, it takes in students and faculty from the life sciences, engineering, social sciences and law.

82. The FAO biotechnology priority area for interdisciplinary action is currently preparing the "FAO agriculture biotechnology policy compendium: options and impacts", which will cover, inter alia, regulatory frameworks and legal instruments for fostering research and technology transfer and for assessing safety, capacity-building and societal dialogue. It has been designed for use in capacity-building workshops, distance learning courses and other outreach activities. FAO also operates the Asian Bio-Net, financed by the Government of Japan. Additionally, FAO has provided assistance in the area of biotechnology policy development.

83. The UNEP-Global Environment Facility projects on the development of national biosafety frameworks and the implementation of national biosafety frameworks help countries develop mechanisms to ensure the safe release of biotechnology products, such as living modified organisms, into the environment. Decision-making support mechanisms such as risk assessment and risk management, have been set up under these projects. The Biosafety Clearing House provides information, expertise, and a monitoring system of transboundary movements of living modified organisms. UNEP, in its capacity-building activities to support the Cartagena Protocol, collaborates with the World Bank, UNDP, UNIDO, WHO, FAO, the International Centre for Genetic Engineering and Biotechnology, the Convention on Biological Diversity, and intergovernmental organizations such as the World Conservation Union.

84. The UNESCO-organized World Conference on Science, held in Budapest from 26 June to 1 July 1999, focused on the need to integrate ethics into the development

and use of science. Its priority areas include improving access to and ensuring benefits-sharing from biotechnology, as well as the protection of intellectual property rights. In line with its mainstreaming priorities, UNESCO ran a specialized programme on biotechnology for development in Africa from 1996 to 2001.

85. The Asian and Pacific Centre for Transfer of Technology, a subsidiary of the Economic and Social Commission for Asia and the Pacific, in collaboration with the Korea Research Institute of Bioscience and Biotechnology, has established the Biotechnology Information Network in Asia and the Pacific. With national focal points in 14 countries, the Network facilitates knowledge-sharing, technology development and technology transfer, and promotes the development of biotechnology industries. Specifically, through a web portal developed in cooperation with the participating member countries, the Network serves as a link in the regional biotechnology community, providing biotechnology professionals with easy access to the network and information, promoting international research and development collaboration for technological development, facilitating technology transfer and assisting in human resource development. Activities of this three-year project also include two expert group meetings, at least eight national workshops and a bimonthly value added technology information service update on biotechnology.

86. The United Nations University Institute of Advanced Studies undertakes research on: biotechnology policy assessment, in particular on best practices by selected Asian countries; biotechnology industrial development policies, with a view to developing a medium- to long-term prospectus on biotechnology development in the Asian region; and an assessment of ongoing capacity-building initiatives worldwide in the areas of biotechnology and biosafety.

87. Among the capacity-building initiatives of the Institute is a fellowship programme to enable young scholars from developing countries to carry out policy-oriented research work, including biotechnology, at the Institute itself or in their home countries. For policymakers, it provides regional-based policy training courses on the use of biotechnology in addressing socio-economic needs. Two courses have been completed in Asia and another one is programmed for 2006 in Africa. Raising public awareness of the importance of biotechnology, especially among policymakers, is an ongoing activity that the Institute undertakes through dialogue and interaction with its worldwide network of collaborators.

88. At the 2000 ILO tripartite meeting on moving to sustainable agricultural development through the modernization of agriculture and employment in a globalized economy, it was recommended that research should be conducted on the impact of genetically modified organisms on employment and working conditions within the ILO mandate. That proposal is under consideration.

89. In collaboration with FAO, the Economic and Social Commission for Western Asia held an international expert group meeting in March 2005 on developments in biotechnology and genetic engineering and their implications for socio-economic development. The meeting aimed at policy formulation and harmonization on biotechnology and genetic engineering and their implications for sustainable development. It promoted coordination of initiatives on the safe and environmentally sound utilization of genetic engineering, especially in the agricultural and agro-food sectors.

90. UNDP is a co-sponsor of the Consultative Group on International Agricultural Research. While it does not work directly in the area of biotechnology, UNDP promotes the application of biotechnology for poverty alleviation. The *2001 Human Development Report* contains a section on biotechnology.[9]

Notes

[1] United Nations publication, Sales No. E.03.II.D.14 (UNCTAD/ITE/IPC/2003/1).

[2] UNCTAD/ITE/IPC/2005/4, United Nations, New York and Geneva, 2005.

[3] As defined in the Convention on Biological Diversity, United Nations, *Treaty Series*, vol. 1760, No. 30619.

[4] UN-Biotech/Africa is a consultative group of Addis Ababa-based United Nations bodies involved in biotechnology-related work in Africa. Established in April 2003 by the Economic Commission for Africa, the group includes FAO, UNDP, UNEP, UNESCO, UNIDO, WFP and WHO. The key benefits of UN-Biotech/Africa would be: (a) the coordination of policies, strategic approaches and actions on biotechnology development, acquisition and diffusion in Africa; (b) the generation of synergies among participating bodies; and (c) the use of an effective platform of exchange of biotechnology-related information, experiences and perspectives.

[5] This Commission is the executive organ of the Joint FAO/WHO Food Standards Programme.

[6] Summary of the meeting is available at ww.unctad.org/en/docs/tdxiGmoReport_18Jun04_en.pdf.

[7] Published in *Policy Issues in International Trade and Commodities, Study Series No. 29*, UNCTAD, 2005; see www.unctad.org/en/docs/itcdtab30_en.pdf.

[8] UNCTAD/DITC/TNCD/2004/1, November 2004; see www.unctad.org/en/docs/ditctncd20041_en.pdf.

[9] The report argues that (a) biotechnology appears to have the potential to bring great benefits but research has been inadequate; (b) some forms of biotechnology are not controversial, and should therefore be accessible to all countries; (c) countries have the sovereign right to decide whether or not to import transgenic organisms, and full disclosure of the presence of these organisms should be made; (d) where genetically modified grain is sent as food aid to countries that have rejected biotechnology, WFP's pragmatic measure to send milled foodstuffs to contain GMO spread is commendable; and (e) opinions on biotechnology are oftentimes based on partial information, and developing countries are at a disadvantage in having insufficient access to information and expertise to guide their decision-making process.

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General and complete disarmament

Measures to prevent terrorists from acquiring weapons of mass destruction

Report of the Secretary-General**

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I. Introduction

1. In its resolution 59/80, entitled "Measures to prevent terrorists from acquiring weapons of mass destruction", the General Assembly urged all Member States to take and strengthen national measures, as appropriate, to prevent terrorists from acquiring weapons of mass destruction, their means of delivery and materials and technologies related to their manufacture, and invited them to inform the Secretary-General, on a voluntary basis, of the measures taken in that regard. The Assembly further requested the Secretary-General to compile a report on measures already taken by international organizations on issues relating to the linkage between the fight against terrorism and the proliferation of weapons of mass destruction, to seek the views of Member States on additional relevant measures for tackling the global threat posed by the acquisition by terrorists of weapons of mass destruction, and to report to the Assembly at its sixtieth session. The present report is submitted in response to that request.

2. By a note verbale dated 25 February 2005, Member States were invited to inform the Secretary-General of the measures taken, as well as to communicate their views on the issue. On 10 March, letters were also dispatched to relevant international organizations, including relevant bodies and agencies of the United Nations, inviting them to submit contributions for the preparation of the report of the Secretary-General. Organizations that had reported their relevant activities in 2004 were invited to submit only new information in relation to what they had previously submitted.

3. As at 25 July 2005, replies had been received from Bolivia, Chile, Guatemala, Iran (Islamic Republic of), Mexico, Norway, the Russian Federation, Switzerland and Venezuela (Bolivarian Republic of). Their replies are reproduced in section II of the present report. Replies were also received from 10 international organizations; their replies are summarized in section III of the present report. Any further replies received will be issued as addenda to the present report.

II. Replies received from Member States

Bolivia

[Original: Spanish]
[5 May 2005]

The General Assembly of the United Nations, in its resolution 59/80, expresses the concern of States about the risk of linkages between terrorism and weapons of mass destruction.

In this connection, Bolivia considers that although no activities related to terrorism, let alone the use of weapons of mass destruction, have been detected on its territory in the last few years, this possibility should not be ruled out given the implications of terrorism's international scope.

It is therefore necessary to strengthen national capacities to exercise effective control in this regard by establishing and fully implementing legal provisions and cooperating with international organizations.

It should be noted that the draft law on weapons, munitions, explosives and dual-use chemical agents is in the final stage of parliamentary approval. The draft law is designed to significantly improve the Government's control over the full range of operations involved in the acquisition, registration, possession, use, circulation and transfer of armaments and defines the responsibilities of each of the relevant entities. It is also intended to make a firm and transparent contribution to the effective implementation of international agreements and to the adoption of United Nations resolutions, in order to improve the fulfilment of the country's commitments with regard to the problem of weapons.

Chile

[Original: Spanish]
[13 May 2005]

Chile considers that Security Council resolution 1540 (2004) on weapons of mass destruction, non-State actors and terrorism will support effective compliance with international instruments on weapons of mass destruction and, in turn, constitutes an appropriate means of implementing them. Chile reiterates its willingness to contribute to the success of the resolution and to cooperate effectively with the Security Council Committee established pursuant to resolution 1540 (2004).

Chile is participating in the negotiations being conducted under the auspices of the International Maritime Organization with a view to amending the 1988 Convention for the Suppression of Unlawful Acts against the Safety of Maritime Navigation. Chile hopes that these negotiations will soon be brought to a successful conclusion.

In addition, Chile has always been particularly interested in the attainment of an international standards regime for the multilateral regulation of the maritime transport of spent nuclear fuel and radioactive waste. The relevant national authorities are now studying the Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management. Chile has acceded to the other international legal instruments relating to nuclear safety.

Moreover, the relevant national authorities are holding consultations on the International Convention for the Suppression of Acts of Nuclear Terrorism. The Convention will be opened for signature by States on 14 September 2005. It should be noted that Chile has helped to strengthen the international legal framework against terrorism by adopting the 12 counter-terrorism conventions and the respective protocols thereto.

Guatemala

[Original: Spanish]
[9 May 2005]

The Ministry of National Defence, after due consideration, offers the following comments:

(a) The State of Guatemala has no weapons of mass destruction in its arsenal, nor does it have materials and technology for their use and manufacture;

(b) The Ministry requests the Ministry of Energy and Mines to maintain appropriate controls over the radioactive material used in Guatemala for industry and for medical purposes.

Iran (Islamic Republic of)

[Original: English]
[21 June 2005]

The Islamic Republic of Iran is deeply concerned about the worldwide escalation of acts of terrorism in all its forms and manifestations. The continued existence and development of weapons of mass destruction, the possibility of use or threat of use of weapons of mass destruction and the prospect of terrorists acquiring such weapons are all the more threatening the whole international community.

The Islamic Republic of Iran as a State party to all international instruments banning weapons of mass destruction, namely the Non-Proliferation Treaty, the Chemical Weapons Convention, the Biological and Toxin Weapons Convention and the 1925 Geneva Protocol and based on its principled positions and contractual commitments, considers acquiring, developing and using weapons of mass destruction as inhumane, immoral, illegal and against its very basic principles and believes that the most effective way of preventing terrorists from acquiring weapons of mass destruction is through the total elimination of such weapons.

In this context, the Islamic Republic of Iran strongly believes that non-proliferation and disarmament are mutually reinforcing. The efforts directed towards non-proliferation should be paralleled by simultaneous efforts aimed at disarmament. The strengthening of these two concepts together would serve well in securing a world that is free from weapons of mass destruction. Attaining the universality of non-proliferation and disarmament treaties, in particular the Non-Proliferation Treaty, is a must in this regard. The Islamic Republic of Iran also views that any emphasis on the concept of non-proliferation should not divert the attention of the Member States from nuclear disarmament as the highest priority of the international community and the best guarantee against acquisition of weapons of mass destruction by terrorists.

A. Legal aspects

According to the legal system of the Islamic Republic of Iran, international conventions and treaties that are ratified by the Parliament become part of national law of the country and are therefore binding on all Iranian citizens and residents, as well as those under the jurisdiction of the State. The most important international treaties and agreements that, in this regard, are applicable in the Islamic Republic of Iran are as follows:

A.1. International agreements

1. The Treaty on the Non-Proliferation of Nuclear Weapons signed in 1969 and ratified by the Parliament in 1970;

2. The Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on Their Destruction, signed in 1972 and ratified in 1973;

3. The Convention on the Prohibition of the Development, Production, Stockpiling and Use of Chemical Weapons and on Their Destruction, signed in 1993 and ratified in 1997;

4. The statute of the International Atomic Energy Agency (IAEA), ratified in 1958;

5. The IAEA safeguards agreement ratified in 1973;

6. Additional protocol to the IAEA safeguards agreement signed on 18 December 2003;

7. The International Convention for the Safety of Life at Sea ratified on 16 May 1994. Pursuant to the ratification of the Convention, its international codes including the International Ship and Port Facility Security Code, adopted on 1 July 2004, and the International Maritime Dangerous Goods Code are implemented in the Islamic Republic of Iran.

A.2. National agreements

The Islamic Republic of Iran has also enacted a set of relevant national laws and regulations banning and punishing the smuggling and illicit trafficking of any kind of weapons and ammunitions. In practice, these laws and regulations effectively prevent non-State actors from developing, acquiring, manufacturing, possessing, transporting, transferring or using such weapons. The relevant laws and regulations, which are effectively in force, are as follows:

1. The Law on Enhancing Penalties for the Smuggling of Weapons and Ammunition and Armed Smugglers adopted in 1971, which accordingly banned any form of production, acquisition, maintaining, purchasing, transferring, and concealment of explosive material, ammunition and weapons;

2. The Law of Custom Affairs adopted in 1971, by which import of any weapons, ammunition and explosive materials by non-State actors is banned;

3. The Law on Punishment of Weapon Smuggling adopted in 1974, which banned importing, exporting, purchasing, trafficking, concealing and maintaining illegal weapons.

B. Measures for safety and security of dangerous materials

The following laws, regulations, and procedures on safety and security of nuclear, chemical and biological materials, have been adopted and are applicable in the Islamic Republic of Iran:

1. The Law on the Establishment of the Atomic Energy Organization of Iran, adopted in 1974. According to this Law, the Atomic Energy Organization of Iran is responsible for preparing and adopting the regulations in relation to the protection against nuclear radiation and determine the methods of their supervision, as well as issuing the permission for setting up nuclear facilities in the country, in accordance with the safety and security rules and standards for such facilities;

2. All related materials and facilities are under effective protection of the relevant governmental bodies. For the purpose of the physical protection, there are existing regulations such as:

(a) Formation of the Protection Guard of the Nuclear Energy Industries, Facilities, Properties and Documents of the Atomic Energy Organization of Iran, adopted by the Council of Ministers in 1975;

(b) The Law on the Punishment of Saboteurs, adopted in 1975.

C. Control on transition

C.1. Border control

The relevant measures for border controls in the Islamic Republic of Iran are as follows:

1. According to the Customs Law, adopted in 1971, the Customs Administration is the responsible body to monitor and control import and export of all materials, equipment and goods through borders which are subject to monitoring in accordance with existing laws, regulations and procedures;

2. In order to prevent illicit import-export, the law enforcement authorities of the Islamic Republic of Iran are responsible for combating illicit trafficking and control of the State's borders, as well as implementing the border protocols and agreements;

3. The relevant regulations to control transition and transportation of goods in the Islamic Republic of Iran are as follows:

(a) The Regulation on the Trafficking and Transition of Goods through the Territory of the Islamic Republic of Iran, adopted by the Council of Ministers in 1998. According to this Regulation, the transit of chemical, biological and nuclear material is subject to observance of the legal regulations as well as obtaining the required permissions from relevant authorities;

(b) The Regulation on the Road Transportation of Dangerous Materials, adopted in 2002, according to which the road transportation of chemical, biological, and nuclear materials and equipment that are harmful and hazardous for human and animal health, as well as the environment, is subject to observance of specific legal regulations.

C.2. Export-import codification

Based on the international instruments to which the Islamic Republic of Iran is a party as well as its own national regulations, there exist necessary national control measures, including:

1. The Islamic Republic of Iran's Customs Administration implements the state laws and regulations on export-import in accordance with the Export-Import Regulations Code and its annexed tariff table. This Code is regularly updated in the light of the International Convention on the Harmonized Commodity Description and Coding System, codified by the World Customs Organization;

2. The Customs Administration is a member of the World Customs Organization (WCO) and has been implementing the Convention on the Harmonized Commodity Description and Coding System since 25 September 1993. The Customs

Administration also implements the ratified document of WCO, No. L13 dated 29 May 2002, on the list of banned chemical materials or chemical materials subject to special regulations;

3. The Customs Administration, in accordance with the 1990 Regulation on Protection against Radiation, and the latest procedures concerning sensitive radioactive materials and equipment, has established specific tariffs for such items in coordination with the Atomic Energy Organization of Iran, and monitors and controls the import-export process of such materials and equipment, and prevents their illegal import-export;

4. The Islamic Republic of Iran, in accordance with the 1993 Law on Import-Export and the approved rules of procedure of 21 April 1994 for import-export of chemicals named in the Chemical Weapons Convention, has created 11 digit tariff codes to which Iran's Customs Administration is responsible for implementing;

5. Following the ratification of the Chemical Weapons Convention by the Parliament on 27 July 1997, its focal point (national authority) was established in the Islamic Republic of Iran, with its secretariat in the Ministry for Foreign Affairs. The secretariat issues import-export licences for chemicals in accordance with the Convention and domestic laws and regulations as well.

D. New initiatives

As mentioned above, according to the legal system of the Islamic Republic of Iran, international conventions and treaties which are ratified by the Parliament become part of national law and, therefore, adopting additional legislation is not deemed necessary in this regard. However, due to the complexity of implementation of some international obligations, a number of new initiatives have been undertaken:

1. In order to facilitate implementation of the Chemical Weapons Convention, the bill of the Law of National Implementation of the Chemical Weapons Convention was presented to the Parliament for adoption in 2004. According to article 17 of the bill, possessing, acquiring, producing, developing, transferring, stockpiling, maintaining, using or threatening to use chemical weapons or collaboration in committing these acts constitute crimes, and perpetrators will be punished in accordance with the relevant regulations of the Islamic Penal Code;

2. A bill to combat terrorism was approved by the Council of Ministers on 18 November 2003 and sent to the Parliament for adoption in order to become law. In accordance with the bill, production, possession, acquiring, stealing, deceptive acquisition, illicit trafficking, transportation, stockpiling, and development of nuclear, chemical and biological materials that have no justification for prophylactic, protective or any other peaceful purposes, constitute terrorist crimes;

3. In accordance with the obligations under the Chemical Weapons Convention and with the cooperation of the Organization for the Prohibition of Chemical Weapons (OPCW), various seminars were also held by the National Authority of Iran for the industry owners and government officials who deal with the implementation of the Chemical Weapons Convention. The major goal of these seminars was to improve and update the knowledge of participants about their obligations under the Convention and inform them of the latest developments with regard to the implementation of the Convention as follows:

- Third regional meeting of national authorities of States parties in Asia, Tehran, 6-8 September 2005.
- First to sixth annual courses on the medical aspects of defence against chemical weapons; six rounds of these courses have been conducted in Tehran for the past six years consecutively.
- Seventh annual course on the medical aspects on defence against chemical weapons, Tehran, to be held in October 2005.
- First OPCW exercise on the delivery of assistance, Assistex1, Zadar, Croatia, 10 to 14 September 2003. A medical team was dispatched from the Islamic Republic of Iran.
- Second OPCW exercise on the delivery of assistance, Assistex2, to be held in Lviv, Ukraine from 10 to 13 October 2005. A medical team from the Islamic Republic of Iran will be dispatched.

Mexico

[Original: Spanish]
[16 May 2005]

Mexico remains committed to the international community's determination to combat terrorism and to apply appropriate measures to deal with the risk that non-State actors, particularly terrorist groups, might acquire weapons of mass destruction.

The Government of Mexico continues to maintain that there is unquestionably an urgent need to adopt effective measures to confront new realities, particularly the possibility of a terrorist attack involving weapons of mass destruction occurring in any part of the globe, which would seriously jeopardize regional and international security.

Mexico stresses that the best way to deal with the danger posed by weapons of mass destruction is to work towards their complete and irreversible elimination, bearing in mind that, in principle, what does not exist cannot proliferate.

In various forums, Mexico has reaffirmed its commitment to the international strategy of combating terrorism and has stressed that the most effective and conclusive strategy to eliminate this scourge is a sustained effort by the international community to combat the causes that engender, strengthen and spread this phenomenon.

On 7 December 2004, Mexico submitted its first report on the measures it has taken to establish national controls in order to prevent the proliferation of nuclear, chemical or biological weapons and their means of delivery, including by establishing appropriate controls over related materials, in accordance with Security Council resolution 1540 (2004) of 28 April 2004.

In addition, on 29 March 2004 Mexico signed an additional protocol to its safeguards agreements with IAEA, thereby demonstrating its strong commitment to ensuring that nuclear material and facilities are duly safeguarded and protected against potential diversion.

Mexico is also continuing to strengthen its national legal and administrative instruments to prevent non-State actors from being able to manufacture, acquire, possess, develop, transport, transfer or use nuclear, chemical or biological weapons and their means of delivery, in particular for terrorist purposes, as well as attempts to engage in any of the foregoing activities, participate in them as an accomplice, assist or finance them.

In performing this task, Mexico continues to systematically implement the Convention on the Prohibition of the Development, Production, Stockpiling and Use of Chemical Weapons and on Their Destruction and the Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on Their Destruction.

In addition, in the field of nuclear weapons Mexico is complying fully with international instruments on nuclear safety and security, particularly those adopted within the framework of IAEA.

Norway

[Original: English]
[1 June 2005]

Norway welcomed the adoption of Security Council resolution 1540 (2004) and has submitted the report on Norwegian implementation of this resolution to the Security Council. Norway calls upon all United Nations Member States to do so.

Norway fully concurs with the Report of the High-level Panel on Threats, Challenges and Change (A/59/565) as well as the report of the Secretary-General "In larger freedom" (A/59/2005), which calls for a strengthening of relevant multilateral and legally binding instruments on non-proliferation and disarmament. Norway is party to the Non-Proliferation Treaty, the Chemical Weapons Convention, the Biological and Toxin Weapons Convention and the Comprehensive Nuclear-Test-Ban Treaty.

Norway calls for full universalization and full compliance with the obligations set by these treaties. Norway has supported various proposals to further strengthen the Non-Proliferation Treaty, the Chemical Weapons Convention and the Biological and Toxin Weapons Convention, such as improved verification mechanisms.

Norway attaches great importance to the full implementation of relevant International Atomic Energy Agency instruments on nuclear security and safety. Norway has provided voluntary funding to the IAEA Nuclear Security Fund.

Norway welcomes the adoption by the General Assembly of a new convention to suppress nuclear terrorism and calls for its early entry into force.

Norway has signed the International Code of Conduct against Ballistic Missiles Proliferation and urges all United Nations Members to join this important instrument.

Norway supports and takes an active part in the Proliferation Security Initiative. Norway was the first country outside the Group of Eight to join the Global Partnership against the Spread of Weapons and Materials of Mass Destruction. Norway has been actively engaged in dealing with nuclear safety and

security issues in the north-western Russian Federation for the past 10 years. During this period, more than NOK 1 billion (approximately $150 million) has been spent on projects to improve nuclear security and safety in this area.

Norway underlines the need for effective export control in denying terrorists access to weapons of mass destruction and their means of delivery. Norway plays an active role in different export control regimes such as the Nuclear Suppliers Group, the Zangger Committee, the Wassenaar Arrangement and the Australia Group. Norway encourages all United Nations Member States to follow to the guidelines and recommendations from these regimes.

Russian Federation

[Original: Russian]
[26 May 2005]

The Federal Atomic Energy Agency of the Russian Federation (Rosatom) is the central State authority and point of contact in accordance with the 1979 Convention on the Physical Protection of Nuclear Material as well as the national body responsible for implementing the Russian Federation's obligations in the area of ensuring the physical protection of nuclear material.

Significant importance is attached to cooperation with IAEA in the following areas:

- Participation in the drafting of international instruments in the area of physical protection;
- Exchange of information with IAEA and countries parties to the Convention on the Physical Protection of Nuclear Material in the area of physical protection;
- Participation in providing consultation services to countries parties on matters of physical protection, including missions of the IAEA International Physical Protection Advisory Service;
- Participation in work organized by IAEA to train specialists in the area of physical protection.

A draft amendment to the Convention on the Physical Protection of Nuclear Material has now been prepared with the active participation of Russian experts. The adoption of that amendment, which, as expected, will take place during the Conference in July 2005, will significantly broaden the scope of the Convention and be an important step towards strengthening the physical protection regime in the world.

Of particular significance is the IAEA Illicit Trafficking Database programme. The Russian Federation has announced its accession to the programme and participates in an exchange of information.

Significant importance is attached to the training and advanced training of Russian and foreign specialists in the area of physical protection at the Rosatom Intersectoral Special Training Centre in Obninsk.

With the support of IAEA, the Centre has conducted five international courses on physical protection. Since 2001, specialists have been trained within the framework of these courses, including managerial personnel, from 17 countries. The sixth course will be conducted at the end of May 2005.

A demonstration laboratory for foreign-made physical protection equipment is now being established in the Centre (with the help of IAEA).

Furthermore, there is strong bilateral international cooperation with the United States of America and member countries of the European Union to enhance physical protection.

Twenty-one nuclear-hazardous facilities in the Russian Federation are now cooperating at the international level in the area of physical protection. Among them are such large enterprises as the Mayak Production Association and the Siberian Chemical Complex, which have significant amounts of nuclear materials of various categories and also nuclear installations for various purposes.

Switzerland

[Original: French]
[27 May 2005]

Switzerland's policy on weapons of mass destruction

Switzerland does not provide any form of support to non-State actors likely to develop, acquire, manufacture, possess, transport, transfer or use nuclear, chemical or biological weapons and their means of delivery. Any such support would be contrary to Swiss legislation, Switzerland's international obligations and the policy which it pursues at the international level.

1. National legislative bases

Article 7 of the Federal Law of 13 December 1996 concerning war materiel prohibits "the development, manufacture, procurement as intermediary, acquisition, delivery to any destination, import, export, carriage in transit or storage of nuclear, biological or chemical weapons or disposition of such weapons in any other way".

The same article contains a prohibition on inciting any person to commit any of the acts mentioned above or facilitating such commission. This prohibition also applies to acts committed abroad if such acts violate international legal agreements to which Switzerland is a party and if the perpetrator is Swiss or domiciled in Switzerland.

The maximum penalty for violation of the comprehensive prohibition of weapons of mass destruction is imprisonment for 10 years and a fine of 5 million Swiss francs. Attempted violation and participation in a violation are also punishable by law.

2. Fulfilment of Switzerland's international commitments

Switzerland complies with the most recent international rules on control of the export and on the security of materials which are dangerous and/or critical from the standpoint of the proliferation of weapons of mass destruction:

(a) Switzerland is a party to the Treaty on the Non-Proliferation of Nuclear Weapons, the Chemical Weapons Convention and the Biological and Toxin Weapons Convention. It is a member of OPCW and has concluded and brought into force a safeguards agreement with IAEA. Pursuant to these international instruments, enterprises and institutions working in the nuclear, chemical or biological fields are obliged to report on their activities and to undergo inspections by international inspectors;

(b) On 16 June 2000 Switzerland signed an additional protocol to its IAEA safeguards agreement, which entered into force on 1 February 2005;

(c) Switzerland is a party to the Convention on the Physical Protection of Nuclear Material of 3 March 1980;

(d) Switzerland has established an advanced system of controls at its borders and within the country to combat illicit trafficking in controlled goods and technology. The police authorities recently introduced a prevention programme designed to enhance the vigilance of enterprises working in fields which are critical from the proliferation standpoint. The control authorities maintain close links with their counterparts in other countries with regard both to the prevention and to the suppression of illicit trafficking with a view to proliferation;

(e) Switzerland is a member of the export control bodies for weapons of mass destruction, i.e. the Nuclear Suppliers Group, the Zangger Committee, the Australia Group and the Missile Technology Control Regime. It has incorporated into its national legislation the export directives and control lists issued by these bodies. Accordingly, an individual or general export licence is required for any export of a controlled item. A licence is refused if such export is incompatible with Switzerland's international obligations, the non-legally-binding international control measures to which Switzerland subscribes or embargo measures, or if there are grounds for believing that the items in question would be used for the purposes of terrorism or organized crime;

(f) The Order on the control of such goods also contains a "catch-all" clause obliging the exporter of a non-controlled item to obtain authorization for the proposed export if he knows or has been informed by the competent authorities that the item in question is or may be intended for a programme for the production of weapons of mass destruction or their means of delivery;

(g) With a view to preventing the transport of weapons of mass destruction, their means of delivery and related materials to or from States and non-State actors, Switzerland upholds the principles of the Proliferation Security Initiative and cooperates closely with the other States participating in this initiative;

(h) With regard to the international initiatives launched as part of the global campaign against the proliferation of weapons of mass destruction, in May 2003 Switzerland joined the Group of Eight Global Partnership and is active in global chemical disarmament efforts.

Venezuela (Bolivarian Republic of)

[Original: Spanish]
[16 May 2005]

The Bolivarian Republic of Venezuela has reiterated in various multilateral forums its commitment to combating terrorism. It realizes that that task has taken on new urgency in recent years, as terrorism threatens the security and stability of States and has become an even greater concern in the light of the possibility that terrorist groups might have access to nuclear, chemical or bacteriological materials.

For these reasons, effective measures against terrorism are essential for building a more stable and peaceful world. It is incumbent upon everyone in the international community to act without delay to prevent extremist circles from gaining access to materials which could be used as weapons of mass destruction.

The Bolivarian Republic of Venezuela has taken a number of specific steps in this regard, including the 2004 expression of support for the work of IAEA on safeguarding radioactive sources. Furthermore, last year, it furnished OPCW with declarations regarding the use, import and export of certain chemicals which that international organization monitors.

Also worthy of note is the presidential decree of 19 November 2004 on the preparation and implementation of a special anti-terrorism plan (Official Gazette No. 38, 070 of 22 November 2004) aimed at preventing acts of terrorism and identifying any terrorist networks within the country. The decree also calls on the National Assembly to speed up the adoption of legal instruments connected with the prevention and punishment of such acts.

III. Information received from international organizations

4. The summaries in the present section, describing measures taken by international organizations on issues relating to the linkage between the fight against terrorism and the proliferation of weapons of mass destruction, are based on the replies received from the respective organizations. Full versions of the inputs are available from the Department for Disarmament Affairs of the Secretariat.

A. United Nations system

International Atomic Energy Agency

5. IAEA continued to implement its three-year Nuclear Security Plan of Activities, as summarized below. Following the events of 11 September 2001, IAEA conducted a thorough review of its programmes relating to the prevention of acts of nuclear and radiological terrorism, and prepared a three-year comprehensive plan for upgrading nuclear security worldwide. The Plan of Activities comprised elements that contributed to the prevention of acts of terrorism and the detection of malicious acts and the response to such acts, and threats of such acts, should they occur. A proposal to continue the Plan for the period 2006-2009 will be submitted to the IAEA Board of Governors in August 2005.

Physical protection of nuclear material and nuclear facilities and assessment of vulnerability of nuclear facilities

6. These activities aimed to further enhance the capacity of Member States to protect nuclear facilities and nuclear material against nuclear terrorism. They also strengthened the capability of Member States to assess the vulnerability of nuclear facilities to possible malicious acts.

7. The goals of this activity area were achieved by the development of appropriate methodologies, and the provision of training, advisory services and other supporting activities to improve security arrangements at specific locations.

8. IAEA continued to advise States on strengthening the effectiveness of physical protection systems and planned four advisory missions for this purpose in 2005. Work on revising its guidelines on nuclear power plants, research and fuel cycle facilities is nearing completion.

9. A document on the development and maintenance of the design basis threat concept, relating to the physical protection of nuclear material and related facilities, was made available by IAEA as interim guidance. It was also recommended for use, with some adaptation, in the design and evaluation of security measures. IAEA held workshops in several States on the basic principles of the design basis threat concept.

10. Training and education were fundamental to the Agency's approach to enhancing physical protection systems in States. Training courses, workshops and seminars were held on six continents to raise awareness and provide practical experience in nuclear material accountancy and physical protection.

11. In response to concerns about the security of research reactors, IAEA developed an integrated plan for enhancing the security of research reactors.

Detection of malicious activities such as illicit trafficking

12. This activity ensured that effective measures were in place to detect and interdict incidents of theft, illicit possession and illicit trafficking of nuclear and other radioactive materials.

13. The IAEA International Nuclear Security Advisory Service undertook a number of advisory missions on individual illicit trafficking incidents in South America and Africa.

14. Integrated nuclear security support plans were central to the implementation of IAEA nuclear security activities. The support plans initiative began in 2003, focusing on direct contributions, with the purpose of bringing about targeted nuclear security enhancements in States. The establishment of the support plans mechanism systematized the Agency's interventions and yielded useful information about States' nuclear security status.

15. IAEA efforts also focused on increasing States' capabilities to monitor, detect, identify and respond to nuclear security incidents involving the detection of materials at borders and in transit. National and subregional training courses were designed to address the specific needs of various relevant State actors.

16. Work continued on the implementation of the coordinated research project entitled "Improvement of technical measures to detect and respond to illicit

trafficking of nuclear and other radioactive materials". So far, approximately 30 research contracts and agreements have been concluded with 18 States.

17. The Agency participated in an initiative to protect the 2004 summer Olympic Games from incidents of nuclear and radiological terrorism by evaluating the nuclear security system of Greece and providing advice to the competent authorities.

18. Efforts to provide guidelines and recommendations to the law enforcement community continued. The Agency's work on a handbook on illicit trafficking is nearing completion.

Strengthening of State systems for nuclear material accountancy and control

19. The Agency, recognizing that effective systems for nuclear material control and accountancy are essential for maintaining the security of nuclear material and combating illicit trafficking, helped Member States to ensure that all nuclear materials were properly accounted for. The IAEA Advisory Service on material accountancy and control provided assessment services to States and coordinated technical support programmes provided by member States. It also provided guidance on technical capabilities necessary for performing measurements and analysis.

Security of radioactive material other than nuclear material

20. IAEA sought to improve national security measures with respect to radioactive material and to ensure that significant uncontrolled radioactive sources were brought under regulatory control and properly secured.

21. It continued, for example, to participate in the Tripartite Initiative (IAEA, Russian Federation and United States) for the purpose of securing vulnerable, high-activity radioactive sources within the former Soviet Union, except in the Russian Federation. The Agency's radiation safety infrastructure appraisal mechanism was expanded in 2004 to encompass nuclear security aspects. The scope of the Code of Conduct for the Safety and Security of Radioactive Sources was expanded from radiological safety to include radiological security. IAEA also assisted States in the development of national strategies for regaining control over nuclear sources.

22. IAEA helped to establish three regional radiological security partnerships. The first, involving the United States and Australia, was to train regulators and users in South-East Asia. The second, between India and the United States, will provide training, instrumentation and technical support in India and beyond. A third partnership, initiated by South Africa, the United States and IAEA, was established specifically for sub-Saharan Africa.

Response to malicious acts or threats thereof

23. The goal of this activity was to prepare States and the Agency to respond effectively to acts of terrorism involving nuclear and other radioactive materials. This was achieved through training and technical support, the development of guidelines and enhancement of the Agency's own arrangements to respond to radiological emergencies.

24. IAEA intensified its efforts to strengthen emergency response measures in States and was implementing an ongoing training programme on such measures. It had also undertaken incident response missions in a number of States. Through

these efforts, IAEA considered that it could now also respond to nuclear security incidents outside the realm of nuclear accidents and emergencies.

Adherence to and implementation of international agreements, guidelines and recommendations

25. IAEA conducted outreach programmes to encourage Member States' adherence to, or implementation of international instruments relevant to enhanced protection against nuclear terrorism. The Agency continued to provide advice to States on developing national legislation on the safe and peaceful uses of nuclear energy. It also actively encouraged States to adhere to the Convention on the Physical Protection of Nuclear Material and convened a number of international conferences on the security of nuclear and other radioactive material.

26. Advisory missions of the Agency's international team of experts promoted adherence to and implementation of international instruments designed to enhance measures for protection against nuclear terrorism. Missions were undertaken to Africa, Central America and South-East Asia in 2005.

Enhanced programme coordination and information management

27. IAEA seeks, to ensure the coordination of its activities and those of Member States to strengthen nuclear security by providing consolidated information and fostering information exchange with other international organizations.

28. The implementation of the three-year Nuclear Security Plan of Activities has rested on extensive coordination and on information relating to States' needs. The knowledge gained from the Agency's nuclear security missions to States served as a platform for coordination across the spectrum of nuclear security work. The Agency has also been actively engaged in attracting new participants to its nuclear security cooperation programme. These participants include the Organization for Security and Cooperation in Europe, Interpol, the World Customs Organization and Europol.

29. The Plan of Activities for the next three years will build on work done and lessons learned over the past three years. Taking into account significant developments in the legal framework underpinning nuclear security, the programme will now focus on three principal areas, namely, assessing nuclear security needs, threat analysis and coordination; preventing malicious activities involving nuclear and radioactive materials; and detecting and responding to malicious activities.

International Civil Aviation Organization

30. The International Civil Aviation Organization (ICAO) focuses on preventing unlawful interference in civil aviation. The organization has no specific measures to prevent terrorists from acquiring weapons of mass destruction.

31. In the light of the continued threat to civil aviation posed by man-portable air defence systems, the ICAO Assembly in October 2004 adopted resolution A35-11 with a view to strengthening the aviation community's efforts to address this serious threat. The Assembly urged contracting States to participate actively in the development of an international instrument for the purpose of identifying and tracing illicit small arms and light weapons, as referred to in General Assembly resolution 58/241, and to apply the principles defined in the Elements for Export

Controls of Man-Portable Air Defence Systems of the Wassenaar Arrangement, if they had not yet participated in the Arrangement.

32. ICAO reported substantial progress in developing and implementing measures to enhance the security of travel documents. These included revised specifications for machine readable visas, that is, an updated ICAO "blueprint" for biometric identification in travel documents.

International Maritime Organization

33. The International Maritime Organization indicated that the special measures to enhance maritime security, adopted in the Framework of the International Convention for the Safety of Life at Sea, would contribute to the achievement of the objectives of General Assembly resolution 59/80. Further contributions would be made when the proposed amendments to the 1988 Convention for the Suppression of Unlawful Acts against the Safety of Maritime Navigation and the 1988 Protocol for the Suppression of Unlawful Acts against the Safety of Fixed Platforms and the Continental Shelf were adopted and entered into force.

United Nations Office on Drugs and Crime

34. The United Nations Office on Drugs and Crime stated that it was not currently engaged in matters directly related to the linkage between the fight against terrorism and the proliferation of weapons of mass destruction. However, it had provided legal advisory services to Member States requesting assistance for the ratification and implementation of the 12 universal anti-terrorist instruments, including the Convention on the Physical Protection of Nuclear Material and the International Convention for the Suppression of Terrorist Bombings. Since 1992, the Office had supported 108 countries in ratifying and implementing those instruments. It had also provided legal technical assistance for the newly adopted International Convention for the Suppression of Acts of Nuclear Terrorism.

35. Additionally, the Office had contributed substantive inputs, for events addressing the threat of weapons of mass destruction. It had liased with IAEA on possible future joint activities and had regularly shared information.

B. Other international organizations

International Centre for Genetic Engineering and Biotechnology

36. The International Centre for Genetic Engineering and Biotechnology indicated that it was currently assisting the Secretariat in implementing the recommendations of the Policy Working Group on the United Nations and Terrorism, in particular its recommendation 21, which provided, inter alia, that relevant United Nations offices should be tasked with producing proposals to reinforce ethical norms, and that the creation of codes of conduct for scientists, through international and national scientific societies and institutions that taught sciences or engineering skills related to weapons technologies, should be encouraged.

37. The Centre had held extensive discussions for this purpose with representatives of science academies worldwide, which had resulted in the preparation of a draft document. The draft provided "building blocks" for possible codes of conduct, which would need to be adapted to specific national situations, taking into account relevant cultural, religious, social and economic considerations.

Interpol

38. Interpol stated that it had designated public safety and terrorism as a priority crime area and had taken action to support its member countries in their efforts to combat terrorism. This included capacity-building measures for the prevention of terrorist events and assistance in responding to or investigating terrorist attacks through incident response teams analytical support and the use of Interpol's databases.

39. Interpol had launched several projects to address the issue of terrorists acquiring weapons of mass destruction. Project Geiger analysed law enforcement and other data on the theft of radiological material; Project CRIT (Cooperative Radiological Instrument Transfer), aimed to enhance the capacity of the participating member countries (Croatia, Kazakhstan, Kyrgyzstan, Poland, Romania, Turkey and Uzbekistan) to fight global radiological terrorism through training of law enforcement personnel; a third project dealt with the prevention of bioterrorism.

40. Interpol had collected, stored, analysed and exchanged information on suspected individuals and groups involved in terrorist activities. It had created the Fusion Task Force to initiate a proactive, multidisciplinary approach to assisting member countries in terrorism-related investigations.

41. As part of its prevention and control programme against terrorism, Interpol had developed "orange notices" that served as timely warnings to law enforcement and security officials about threats that they might not normally detect.

North Atlantic Treaty Organization

42. The North Atlantic Treaty Organization (NATO) stated that its activities in the field of non-proliferation were covered by the Alliance Policy Framework of 1994, the principal goal of which was to prevent proliferation from occurring or, should it occur, to reverse it through diplomatic means.

43. The Alliance's response to terrorism would include full implementation of Security Council resolution 1373 (2001) and would continue to be multifaceted and comprehensive, comprising political, diplomatic, economic and, where necessary, military means.

44. In referring to the political dimension of its response, NATO cited its Istanbul summit in 2004, which had emphasized the importance of political non-proliferation instruments. The summit had also underlined the Alliance's commitment to various legal and informal instruments and agreed on an enhanced set of measures to prevent the acquisition of weapons of mass destruction by terrorists. The measures included improved intelligence sharing, greater ability to respond to requests for assistance in dealing with terrorist attacks, enhanced cooperation with partners and dialogue with countries in their region.

45. With regard to its defence response, NATO had held consultations and practical exercises with the Russian Federation to address the risks related to non-strategic weapons systems and the procedures to safeguard them. In view of the risk of non-State actors acquiring weapons delivery systems, NATO had undertaken technical work to respond to the proliferation of such systems and their potential use by terrorists. The Alliance had a maritime surveillance operation to impede the transport of weapons of mass destruction. Additionally, it had put in place five nuclear, biological and chemical defence initiatives that included risk assessment, analysis and training elements as well as a disease surveillance system.

46. NATO had developed a programme of work for its technological response to terrorism. The programme's objective was to develop systems to prevent various forms of terrorist attack. The "Security through Science" programme facilitated the exchange of information on the detection, verification, disarmament and conversion of weapons of mass destruction at the expert level among NATO members and partner countries.

47. To protect civilian populations in the event of contingencies involving weapons of mass destruction, the Alliance was ready to act as a clearing house to channel requests for assistance from allied or partner countries facing a major nuclear, biological or chemical incident. A civil emergency action plan was being implemented together with partners.

Organization of American States

48. The Organization of American States (OAS) provided a list of relevant resolutions on Inter-American support for the Comprehensive Nuclear-Test-Ban Treaty, the Programme of Action on Small Arms and the Inter-American Convention against the Illicit Manufacture of and Trafficking in Firearms, Ammunition, Explosives, and Other Related Materials.

49. OAS was planning a regional meeting later this year in 2005 on the identification and protection of dangerous substances in laboratories, intended to help Member States better protect chemical, biological and nuclear materials from illicit diversion.

Organization for the Prohibition of Chemical Weapons

50. OPCW reported that it had established channels of communication to develop modalities of practical cooperation. It maintained contacts with other relevant regional, subregional and international organizations in the field of counter-terrorism, seeking opportunity to exchange information and expertise and to coordinate programme activities related to action against terrorism.

51. OPCW had indicated to a number of international organizations its readiness to cooperate with them in action against terrorism. It had appointed a focal point for issues relating to its contribution to the global fight against terrorism and had begun discussions with several international, regional and subregional organizations.

52. On 12 April 2005, at the invitation of the Chairman of the Security Council Committee established pursuant to resolution 1540 (2004), OPCW had briefed the Committee in New York on improvements in the legislative and administrative

measures to implement the Chemical Weapons Convention. The Director-General had emphasized the importance of increased coordination and collaboration with the United Nations and other international organizations engaged in the implementation of the Convention.

53. OPCW had already provided advice and practical assistance to relevant international bodies and was supporting the worldwide study on strengthening international cooperation to combat illicit trafficking and criminal use of chemical, biological, radiological and nuclear substances and weapons, conducted by the United Nations Interregional Crime and Justice Research Institute (UNICRI).

Organization for Security and Cooperation in Europe

54. The Organization for Security and Cooperation in Europe (OSCE) referred to its 1994 decision on principles governing non-proliferation, in which participating States had agreed to prevent the spread of weapons of mass destruction. The OSCE Forum for Security Cooperation was considering updating the document to address changes in the international security environment.

55. In addition, OSCE participating States were examining the possibility of supporting the IAEA Code of Conduct on the Safety and Security of Radioactive Sources and the guidance on the import and export of radioactive substances.

56. In the OSCE Charter on Preventing and Combating Terrorism adopted in 2002, the OSCE participating States reaffirmed the importance of arms control, disarmament and non-proliferation in reducing the risk of terrorists gaining access to weapons and materials of mass destruction and their means of delivery. OSCE collaborated with various international organizations such as IAEA on nuclear security, and with UNICRI on the provision of capacity-building assistance to States on the threat posed by chemical, biological, radiological and nuclear materials.

57. In an effort to increase preparedness among participating States, OSCE had disseminated information, through a specially established counter-terrorism network, on managing the consequences of a chemical, biological, radiological or nuclear attack.